

09/909,835

LISTING OF CLAIMS

Claim 1 (currently amended). An optical module comprising:

an optical semiconductor element sealed with a cap having an upper surface formed with a window;

at least one optical part confronted with the window;

a housing holding the optical part therein, and having an opened end face wherein an outer dimension of the opened end face of the housing is equal to or smaller than an outer dimension of the upper surface of the cap; and

a connecting layer directly connecting the upper surface of the cap to the opened end face of the housing, wherein the connecting layer is formed by an adhesive.

Claim 2 (cancelled).

Claim 3 (original). The optical module according to claim 1, wherein the optical semiconductor element has a stem portion opposite from the upper surface of the cap, and an outer dimension of the opened end face of the housing is equal to or smaller than an outer dimension of the stem portion.

Claim 4 (original). The optical module according to claim 1, wherein the optical semiconductor element has a stem portion opposite from the upper surface of the cap, and the stem portion is distanced from the opened end face of the housing.

Claim 5 (currently amended). The optical module according to claim 1, wherein ~~the connecting layer is formed by an~~ the adhesive is curable by irradiation of ultraviolet rays.

Claim 6 (original). The optical module according to claim 1, wherein the housing has a receptacle part adapted to receive a mating optical plug.

09/909,835

Claim 7 (original). The optical module according to claim 1, further comprising:

a casing, which at least partly covers the cap and the housing;
and which extends across the connecting layer.

Claim 8 (original). The optical module according to claim 7, further comprising:

a sealing layer filled in a clearance between the casing, and the connecting layer, the
sealing layer being formed by resin curable thermally.

Claim 9 (currently amended). An optical module in which an optical semiconductor element of
the cap sealing type is mounted on a housing to be aligned with an optical axis of at least one
optical part contained in the housing, wherein:

an upper surface of a cap of said optical semiconductor element is bonded to an end face
of said housing;

a side surface of said cap of said optical semiconductor element and a side surface of said
housing is at least partly covered with a casing, and a clearance therebetween is sealed with resin;
and

the upper surface of said cap of said optical semiconductor element and the end face of
said housing are bonded by ultraviolet curing adhesive, and the clearance between the inner
surface of said casing, and each of the side surface of said cap of said optical semiconductor
element and the side surfaces of said housing is sealed with thermosetting resin.

Claim 10 (currently amended). ~~An~~ The optical module of claim 9, in which an optical
semiconductor element of the cap sealing type is mounted on a housing to be aligned with an
optical axis of a lens contained in the housing adapted to fittingly receive and hold a ferule of an
optical plug of a mating member, ~~wherein:~~

~~an upper surface of a cap of said optical semiconductor element is bonded to an end face
of said housing.~~

09/909,835

Claim 11 (cancelled).

Claim 12 (cancelled).

Claim 13 (previously amended). An optical module unit, comprising:

a plurality of optical modules arrayed in juxtaposition and covered with a single common casing, each of said optical modules in said plurality including an optical semiconductor element of a cap sealing type mounted on a housing to be aligned with an optical axis of at least one optical part contained in the housing, wherein an upper surface of a cap of said optical semiconductor element is bonded to an end face of said housing; and
a resin sealing a clearance between each of said optical modules.

Claim 14 (cancelled).

Claim 15 (original). An optical module unit, comprising:

a plurality of optical modules arrayed in juxtaposition and covered with a single common casing, each of said optical modules in said plurality including an optical semiconductor element of a cap sealing type mounted on a housing to be aligned with an optical axis of a lens contained in a housing adapted to fittingly receive and hold a ferule of an optical plug of a mating connecting member, wherein an upper surface of a cap of said optical semiconductor element is bonded to an end face of said housing; and
a resin sealing a clearance between each of said optical modules.